

SEQUENCE LISTING

<110> Reactive Surfaces, Ltd.
<120> Recombinant Organophosphorus Acid Anhydride and Methods of Use
<130> RACT-00100
<140> US 08/252,384 A
<141> 2004-06-01
<150> 07/928,540
<151> 1992-08-13
<150> 08/252,384
<151> 1994-06-01
<150> 07/344,258
<151> 1989-04-27
<160> 2
<170> PatentIn version 3.3
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<212> DNA
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aca	atc	tct	gaa	g	g	g	g	t	c	a	c	g	c	a	t	96
Thr	Ile	Ser	Glu	Ala	Gly	Phe	Thr	Leu	Thr	His	Glu	His	Ile	Cys	Gly	
		20				25				30						
agc	tcg	gca	g	g	t	t	c	g	g	t	t	t	g	g	agc	144
Ser	Ser	Ala	Gly	Phe	Leu	Arg	Ala	Trp	Pro	Glu	Phe	Phe	Gly	Ser	Arg	
		35			40				45							
aaa	gct	cta	g	g	g	a	a	g	g	t	c	c	g	g	g	192
Lys	Ala	Leu	Ala	Glu	Lys	Ala	Val	Arg	Gly	Leu	Arg	Arg	Ala	Arg	Ala	
		50			55				60							
gct	g	g	g	c	a	c	g	a	t	g	t	c	g	a	t	240
Ala	Gly	Val	Arg	Thr	Ile	Val	Asp	Val	Ser	Thr	Phe	Asp	Ile	Gly	Arg	
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gac	g	tc	a	g	t	t	g	c	g	t	c	g	g	t	atc	288
Asp	Val	Ser	Leu	Leu	Ala	Glu	Val	Ser	Arg	Ala	Ala	Asp	Val	His	Ile	
		85			90				95							
gtg	g	g	g	g	c	t	t	g	t	c	g	c	t	at	t	336
Val	Ala	Ala	Thr	Gly	Leu	Trp	Phe	Asp	Pro	Pro	Leu	Ser	Met	Arg	Leu	
		100			105				110							
agg	agt	gta	g	g	a	c	t	t	c	t	g	g	att	caa	tat	384
Arg	Ser	Val	Glu	Glu	Leu	Thr	Gln	Phe	Phe	Leu	Arg	Glu	Ile	Gln	Tyr	

115	120	125	
ggc atc gaa gac acc gga att agg ggc ggc att atc aag gtc gcg acc			432
Gly Ile Glu Asp Thr Gly Ile Arg Ala Gly Ile Ile Lys Val Ala Thr			
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aca ggc aag gcg acc ccc ttt cag gag tta gtg tta aag gcg gcc gcc			480
Thr Gly Lys Ala Thr Pro Phe Gln Glu Leu Val Leu Lys Ala Ala Ala			
145	150	155	160
cgg gcc agc ttg gcc acc ggt gtt ccg gta acc act cac acg gca gca			528
Arg Ala Ser Leu Ala Thr Gly Val Pro Val Thr Thr His Thr Ala Ala			
165	170	175	
agt cag cgc gat ggt gag cag cag gcc gcc att ttt gag tcc gaa ggc			576
Ser Gln Arg Asp Gly Glu Gln Gln Ala Ala Ile Phe Glu Ser Glu Gly			
180	185	190	
ttg agc ccc tca cgg gtt tgt att ggt cac agc gat gat act gac gat			624
Leu Ser Pro Ser Arg Val Cys Ile Gly His Ser Asp Asp Thr Asp Asp			
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ttg agc tat ctc acc gcc ctc gct gcg cgc gga tac ctc atc ggt cta			672
Leu Ser Tyr Leu Thr Ala Leu Ala Ala Arg Gly Tyr Leu Ile Gly Leu			
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gac cac atc ccg cac agt gcg att ggt cta gaa gat aat gcg agt gca			720
Asp His Ile Pro His Ser Ala Ile Gly Leu Glu Asp Asn Ala Ser Ala			
225	230	235	240
tca gcc ctc ctg ggc atc cgt tcg tgg caa aca cgg gct ctc ttg atc			768
Ser Ala Leu Leu Gly Ile Arg Ser Trp Gln Thr Arg Ala Leu Leu Ile			
245	250	255	
aag gcg ctc atc gac caa ggc tac atg aaa caa atc ctc gtt tcg aat			816
Lys Ala Leu Ile Asp Gln Gly Tyr Met Lys Gln Ile Leu Val Ser Asn			
260	265	270	
gac tgg ctg ttc ggg ttt tcg agc tat gtc acc aac atc atg gac gtg			864
Asp Trp Leu Phe Gly Phe Ser Ser Tyr Val Thr Asn Ile Met Asp Val			
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atg gat cgc gtg aac ccc gac ggg atg gcc ttc att cca ctg aga gtg			912
Met Asp Arg Val Asn Pro Asp Gly Met Ala Phe Ile Pro Leu Arg Val			
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Ile Pro Phe Val Arg Glu Lys Gly Val Pro Gln Glu Thr Leu Ala Gly			
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atc act gtg act aac ccg gcg cgg ttc tat gtc acc gac ctt gcg ggc			1008
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Val			

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 <213> Pseudomonas diminuta

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35 40 45

Lys Ala Leu Ala Glu Lys Ala Val Arg Gly Leu Arg Arg Ala Arg Ala
50 55 60

Ala Gly Val Arg Thr Ile Val Asp Val Ser Thr Phe Asp Ile Gly Arg
65 70 75 80

Asp Val Ser Leu Leu Ala Glu Val Ser Arg Ala Ala Asp Val His Ile
85 90 95

Val Ala Ala Thr Gly Leu Trp Phe Asp Pro Pro Leu Ser Met Arg Leu
100 105 110

Arg Ser Val Glu Glu Leu Thr Gln Phe Phe Leu Arg Glu Ile Gln Tyr
115 120 125

Gly Ile Glu Asp Thr Gly Ile Arg Ala Gly Ile Ile Lys Val Ala Thr
130 135 140

Thr Gly Lys Ala Thr Pro Phe Gln Glu Leu Val Leu Lys Ala Ala Ala
145 150 155 160

Arg Ala Ser Leu Ala Thr Gly Val Pro Val Thr Thr His Thr Ala Ala
165 170 175

Ser Gln Arg Asp Gly Glu Gln Gln Ala Ala Ile Phe Glu Ser Glu Gly
180 185 190

Leu Ser Pro Ser Arg Val Cys Ile Gly His Ser Asp Asp Thr Asp Asp
195 200 205

Leu Ser Tyr Leu Thr Ala Leu Ala Ala Arg Gly Tyr Leu Ile Gly Leu
210 215 220

Asp His Ile Pro His Ser Ala Ile Gly Leu Glu Asp Asn Ala Ser Ala
225 230 235 240

Ser Ala Leu Leu Gly Ile Arg Ser Trp Gln Thr Arg Ala Leu Leu Ile
245 250 255

Lys Ala Leu Ile Asp Gln Gly Tyr Met Lys Gln Ile Leu Val Ser Asn
260 265 270

Asp Trp Leu Phe Gly Phe Ser Ser Tyr Val Thr Asn Ile Met Asp Val
275 280 285

Met Asp Arg Val Asn Pro Asp Gly Met Ala Phe Ile Pro Leu Arg Val
290 295 300

Ile Pro Phe Val Arg Glu Lys Gly Val Pro Gln Glu Thr Leu Ala Gly
305 310 315 320

Ile Thr Val Thr Asn Pro Ala Arg Phe Tyr Val Thr Asp Leu Ala Gly
325 330 335

Val